

RECEIVED  
SACRAMENTO  
CVRWQCB

**Kennedy/Jenks Consultants**

**Engineers & Scientists**

303 Second Street, Suite 300 South  
San Francisco, California 94107  
415-243-2150  
FAX: 415-896-0999

6 March 2009

Ms. Pamela Creedon  
Executive Officer  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670

Subject: Tentative Waste Discharge Requirements  
Barrel Ten Quarter Circle Land Company, Escalon Cellars  
K/J 030118\*12

Dear Ms. Creedon:

Comments on the Tentative Waste Discharge Requirements and associated attachments for the Barrel Ten Quarter Circle Land Company, Inc. (BTQCLC) Escalon winery were prepared by the California Sportfishing Protection Alliance (CSPA). We are writing on behalf of BTQCLC to respond to those comments.

**General Responses**

CSPA fails to distinguish between the prior discharge, the current discharge and the proposed future discharge, which are described in public records of the California Regional Water Quality Control Board, Central Valley Region (CRWQCB), including, without limitation, the following documents:

- Report of Waste Discharge, 28 January 2005, Prepared for BTQCLC by Kennedy/Jenks Consultants (ROWD);
- Report of Waste Discharge Amendment, 19 September 2005, Prepared for BTQCLC by Kennedy/Jenks Consultants (First Amendment);
- Engineering Report, Report of Waste Discharge Amendment II, 26 May 2006, Prepared for BTQCLC by Kennedy/Jenks Consultants (Second Amendment);
- Groundwater Characterization Report, 30 May 2007, Prepared for BTQCLC by Kennedy/Jenks Consultants (Groundwater Report); and
- Report of Waste Discharge Amendment 3, 10 November 2008, Prepared for BTQCLC by Kennedy/Jenks Consultants (Third Amendment).

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 2

In sum, these documents<sup>1</sup> describe the prior discharge, the current discharge and the proposed future discharge as follows:

**The Prior Discharge (late 1800s to 2003):** the facility (a) was under different ownership, (b) engaged in crushing and distilling operations, (c) was permitted under Waste Discharge Requirements Order No. 91-223 (the 1991 WDR) to discharge 1,400,000 gpd of process water.

**The Current Discharge (2003 to present):** the facility (a) was acquired by BTQCLC, (b) ceased crushing operations and (c) ceased distilling operations. As a result, the facility's discharges have dropped to less than 60,000 gpd (2008 average = 53,411 gpd) and do not cause or contribute to any groundwater degradation.

**The Proposed Future Discharge:** the facility proposes to (a) install new and improved process water management systems (detailed below) designed to prevent future discharges from causing or contributing to any groundwater degradation, (b) resume crushing operations, increasing the crushing rate (and, therefore, the volume of process water discharges) gradually over time up to a maximum monthly average discharge rate of 160,000 gpd, 11% of the discharge rate permitted by the 1991 WDR and (c) conduct monitoring to confirm that the new and improved systems are in fact preventing the discharges from causing or contributing to any groundwater degradation.

CSPA confuses the Prior and Current Discharges, and this confusion leads to two fundamental mistakes.

First, CSPA asserts that the Current Discharge is degrading groundwater quality, but this assertion is wrong because (1) it is based on data from the very different Prior Discharge and (2) the data from the Current Discharge indicate it is not degrading groundwater quality.

Second, CSPA asserts that the Proposed Future Discharge will degrade groundwater quality because it will be an intensification of the Current Discharge, which, CSPA asserts, is degrading groundwater quality. This assertion is incorrect because (1) as noted above, the Current Discharge is not degrading groundwater quality, (2) new and improved process water management systems (designed to prevent future discharges from causing or contributing to any groundwater degradation) will be installed before the Proposed Future Discharge begins, and (3) monitoring will be conducted to confirm that the new and improved systems are working.

---

<sup>1</sup> BTQCLC incorporates the entirety of the ROWD, the First, Second and Third Amendments and the Groundwater Report by this reference as though fully set forth here. Copies of these documents are in the possession of the CRWQCB, and BTQCLC is informed and believes that the specific file folder or other exact location where they can be found is known to and readily ascertainable from CRWQCB officials Timothy O'Brien and Mary Serra.

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 3

## Specific Responses

**Page 1, second paragraph** – Beginning with: "CSPA requests status as a designated party ...." CSPA's website (<http://www.calsport.org/>) describes CSPA's mission as "Conserving California's Fisheries." This matter concerns (1) the application of process water to land areas for irrigation and (2) proposed measures to protect groundwater from impacts associated with that application. Fish do not reside in the affected land areas or in the groundwater. Therefore, CSPA has no institutional interest at stake, and designated party status is neither necessary nor appropriate.

**Page 1, bullet 1** – Beginning with: "Cease and Desist Order..." The CDO was issued to the previous owner of the facility based on operations that had already occurred at the facility. The Discharger sought a technical report schedule change when the CDO was shifted from the previous owner to the current owner because the new owner needed time to become familiar with the site, develop its plan for the site, and prepare the required reports to address the operational changes at the site.

**Page 2, bullet 1** – Beginning with: "The Discharger was allowed..." The ROWD and Amendments demonstrate that the proposed process water management system is protective of groundwater quality. The system includes several Best Practicable Treatment and Control (BPTC) measures to reduce the salinity of the process water, process water blending tanks for equalizing higher and lower strength process water, precision agriculture for land application management, and stormwater management. Much of the system has not been constructed yet, pending issuance of the new WDRs. Current activities at the site by the current Discharger consists of storage and filtration. The discharge associated with these activities is approximately 4% of the flow permitted by WDR 91-223.

**Page 2, bullet 3** – Beginning with: "A new 8.3-acre tailwater..." Land Application Area 1 (LAA-1) is divided into 37 individual checks that run in the east-west direction. Each check is surrounded by a berm. Irrigation water is applied from the west side of LAA-1 and flows to the east side. If water reaches the east side, the berm can be temporarily breached to allow the excess water ("tailwater") to flow to the tailwater basin for temporary storage before it is reapplied for irrigation. Cutback irrigation – i.e., turning off the irrigation supply before the water reaches the east end of the check – is used to minimize the amount of tailwater that is generated.

Irrigation at the site (a) involves three kinds of water (rainwater, Irrigation District water and process water) and (b) occurs according to two different seasonal protocols, one for the rainy season (November – April) and one for the dry season (May – October).

During the rainy season, rainwater and process water are used. Under the rainy season protocol, the berms are not breached (and, therefore, tailwater is not created) unless the excess water is pure rainwater, i.e., unless all previously-applied process water had entirely percolated and/or evaporated away before the storm event. Thus, during the rainy season, the tailwater – and, therefore, the tailwater pond – contains no process water.

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 4

During the dry season (May – October), Irrigation District water and process water are used. Under the dry season protocol, process water is collected in the main sump at the facility and pumped to one of four 250,000 gallon blending tanks for equalization and blending. Irrigation District water is blended with the process water at approximately 9 parts Irrigation District water to 1 part process water prior to being applied to the checks to meet crop irrigation requirements. If any of this 9:1 blended water enters the tailwater basin, it is returned to the land application area during the next irrigation event, which occurs when the Irrigation District makes its next water delivery. These deliveries occur every 10 days.

There are two main reasons why the tailwater basin does not create groundwater impacts:

- 1) The water entering the tailwater basin is primarily stormwater and Irrigation District water and is of much higher quality than process water discharged from a winery.
- 2) Large volumes of water will not remain in the pond for extended periods of time. Therefore there will not be constant head pushing the water through the vadose zone beneath the basin.

**Page 2, bullet 4** – Beginning with: "The Discharger has proposed..." The discharger has not committed to any single crop. A cropping study is currently underway that will document the crop uptake rates that can be achieved by the crops that are studied.

**Page 2, bullet 5** – Beginning with: "The Discharger has investigated..." As explained in the Groundwater Report (see pp. 35-37), groundwater conditions observed at the site are the result (a) the Prior Discharge, (b) dairy manure and wastewater application, (c) regional agricultural practices, and (d) background conditions. They are not caused by the Current Discharge, which, unlike the Prior Discharge, involves (1) no distillation operations, (2) no crushing operations, and (3) an average volume (for 2008) of 53,411 gpd, or 4% of the permitted volume. And, as explained in the Second and Third Amendments, the Proposed Future Discharge will not cause or contribute to any groundwater degradation because (A) there will continue to be no distillation operations, (B) the maximum monthly average volume at full build-out – 160,000 gpd – will still be a small fraction (11%) of the amount (1,400,000 gpd) permitted under the 1991 WDR and (C) the following new and improved process water management systems will be in place:

- Use of a clean-in-place (CIP) system for tank cleaning – this process reuses caustic cleaners, thereby reducing the salinity of the facility effluent.
- Process water blending and equalization via holding tanks – this process produces a more uniform process water quality that is applied to the land application system
- Offsite disposal of ion exchange regeneration streams (for both water softening and wine ion exchange) – this process reduces the salinity of the effluent.
- Implementation of employee orientation and training on source control and water conservation – this process communicates source control and water conservation goals

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 5

and objectives to facility employees in order to improve process water quality and quantity.

- Use of ozone for sanitation – ozone can replace chlorine based sanitizers thereby reducing the salinity of the effluent.
- Use of a closed-loop water cooling and evaporative condenser system – this system reduces the amount of water discharged.

**Page 2, bullet 6** – Beginning with: "The investigation revealed..." It is not clear what portion of the groundwater condition observed at the site is due to the dairy operations versus the Prior Discharge. However, as noted above, the Current Discharge has not contributed to the groundwater condition.

**Page 2, bullet 7** – Beginning with: "The northern area..." Again, any groundwater impacts due to site operations were caused by the Prior Discharge which included high strength stillery process water.

**Page 2, bullet 8** – Beginning with: "An effluent limitation..." There is no electrical conductivity limit included in the tentative 2009 WDR; instead, consistent with the Salinity Guidance memo, there is an FDS limit.

**Page 2, bullet 9** – Beginning with: "The Discharger has not..." As demonstrated in the Third Amendment (pp. 18-21) the Proposed Future Discharge will not cause or contribute to degradation of groundwater quality.

**Page 3, bullet 1** – Beginning with: "Groundwater monitoring has been..." This comment could not be found in the tentative WDR or attachments.

**Page 3, item 1, paragraph 2** – Beginning with: "Groundwater quality at..." As noted above, groundwater at the facility has been impacted by the Prior Discharge, by the neighboring dairy, and by regional agricultural practices. Also as noted above, the Current Discharge and Proposed Future Discharge are significantly different than the Prior Discharge and have not and will not degrade groundwater quality. Thus, contrary to CSPA's unsupported assertion, the Discharger has not and will not degrade groundwater quality. BPTC measures that have been implemented and which are proposed at the facility are described above. Many of the BPTC measures that are planned, including use of a CIP system for tank sanitation, the process water blending system, offsite reuse of the wine ion exchange regeneration stream are relatively uncommon in large scale wineries and therefore represent source control activities that exceed the industry standard for process water management in large wineries:

According to the California Water Code, exemption from Title 27 is applicable to a waste discharge if the following three conditions are met: 1) WDRs are issued, 2) the discharge is in

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 6

compliance with the Basin Plan, and 3) if the wastewater is not a hazardous waste. CSPA tacitly concedes the first and third conditions have been met here.

Regarding the second condition, the Current and Proposed Future Discharges are not and will not be in violation of the Basin Plan and have not caused and will not cause groundwater degradation. Furthermore, the tentative WDR provides requirements for the Discharger to conduct studies to document the assimilative capacity of the site and the process water quality that will be generated as a result of reinitiating crushing activities and implementing new BPTC measures. Interim limits that incrementally become more stringent are also provided in tentative order, and the final effluent limits (which will be based on the outcome of the site specific studies) will by design meet the requirements of the Basin Plan and, therefore, continue to satisfy the second condition.

Thus, all three conditions to the Title 27 exemption have been – and will continue to be – met, and, therefore, Title 27 does not apply.

**Page 3, item 1, paragraph 3** – Beginning with: "The proposed WDR..." Again, the record shows groundwater impacts were caused by the Prior Discharge, dairy discharges, and regional agricultural practices. Conversely, the record shows the Discharger, the Current Discharge and the Proposed Future Discharge have not degraded and will not degrade groundwater quality.

**Page 4, first full paragraph** – Beginning with: "Water Code Section ..." Again, the record shows that the Current Discharge and Proposed Future Discharges have not caused and will not cause degradation of groundwater quality or an impact to beneficial uses of the groundwater. See, for example, Third Amendment, pp. 18-21.

**Page 5, paragraph 1** – Beginning with: "The RWD and record..." Again, CSPA's comments allude to the Prior Discharge, not the Current Discharge or the Proposed Future Discharge. Also, as explained above, the Title 27 exemption applies.

**Page 5, paragraph 2** – Beginning with: "The hay crop..." The crops that will be planted at the facility will be selected based on their ability to take up constituents present in the process water. Literature uptake values range from the low hundreds to over 2,000 pounds per acre per year (lbs/ac/year) per crop (CLFP, 2007)<sup>2</sup>, and BTQCLC is already experimenting with multiple-cropping. The tentative WDR requires studies to be conducted to determine site specific uptake rates for appropriate crops. The record shows that the combination of cropping and other factors will result in no degradation from the Proposed Future Discharge. If the required studies show otherwise, BTQCLC understands the CRWQCB may impose additional requirements (e.g., more process water management improvements) as needed. (See WDR Order paragraph B.4.: "The discharge shall not cause the degradation of any water supply.") But it is premature to

<sup>2</sup> BTQCLC incorporates the entirety of the California League of Food Processors (CLFP) Manual of Good Practice for Land Application of Food Processing/Rinse Water, 14 March 2007, by this reference as though fully set forth here. Copies of this document is in the possession of the CRWQCB, and BTQCLC is informed and believes that the specific file folder or other exact location where they can be found is known to and readily ascertainable from CRWQCB officials Timothy O'Brien and Mary Serra.

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 7

impose such additional requirements so long as the record continues to show the Proposed Future Discharge will not cause degradation.

**Page 5, paragraph 3** – Beginning with: "In addition to..." The tailwater basin will not receive direct waste discharge and will not function as a percolation basin. As described above, the basin will be dry most of the year and will collect tailwater during the irrigation season and stormwater during the rainy season until it can be redistributed over the land application area (no more than 10 days during the irrigation season and when conditions permit during the rainy season). During the rainy season the basin will only contain rainwater. Additionally, the reported infiltration rate applies to the shallow soil and does not represent the travel time to groundwater because (a) constant head is not driving the water to the water table and (b) the vadose zone is comprised of many layers of varying infiltration rates.

**Page 5, paragraph 4** – Beginning with: "The Regional Board..." The quoted portion of the Designated Methodology for Waste Classification and Cleanup Determination applies where mass loading of waste constituents is likely to saturate the environmental attenuation process, which is not the case here. Neither the land application area nor the tailwater basin will be used on a continuous basis as stated by CSPA. To the contrary, they will often be dry.

**Page 6, paragraph 2** – Beginning with "In the case of..." Again, contrary to CSPA's assertion, the Proposed Future Discharge to the tailwater basin and the land application area will not be continuous.

**Page 6, paragraph 3** – Beginning with "The discharge of..." As described above, the Current Discharge has not caused degradation, and the Proposed Future Discharge will not do so. Again, the Current and Proposed Future Discharges are and will continue to be significantly different than the Prior Discharge. Therefore, the Current and Proposed Future Discharges do not constitute "designated waste" within the meaning of Water Code section 13173(b). Also, as explained above, the Title 27 exemption properly applies to the Current and Proposed Future Discharges.

**Page 6, paragraph 4** – Beginning with "The Order must..." As explained above, the Title 27 exemption applies. Therefore, the Title 27 requirements cited by CSPA do not apply.

**Page 6, paragraph 5** – Beginning with "The Information Sheet..." Because the Information Sheet says that groundwater has been degraded does not mean the Current Discharge is in violation of the WDR or the CDO. As explained above, the Current Discharge has not impacted groundwater at the facility.

**Page 6, item 2** – Beginning with "The proposed WDR..." The CRWQCB does not issue construction permits and therefore it is presumptuous to assert that the Discharger engaged in "illicit" construction of a pond.

**Page 6, item 2, paragraph 1** – Beginning with "The Discharger has..." CSPA apparently asserts that CEQA review should have been conducted before BTQCLC performed the grading

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 8

work necessary to form the tailwater basin. CEQA review was not required, however, because no discretionary approval was required for the work. Public Resources Code §§21080(a) and 21080(b)(1); 14 CCR §§15060(c)(1) and 15268(a). Also, as noted above and contrary to CSPA's assertion, the tailwater basin will not receive a designated waste and will not cause groundwater degradation.

**Page 7, paragraph 1** – Beginning with "In addition to..." The soil's buffering capacity and the inherent alkalinity of the process water are sufficient to maintain appropriate soil pH to prevent mobilization of constituents in the soil profile. As cited in the CLFP manual, pH values ranging from 3 to 11 have successfully been applied to land application systems (CLFP, 2007). Regarding pH and odors, pH control is only one of several methods for controlling odors in a pond. In any event, the WDR prohibits objectionable odors beyond BTQCLC's property line.

**Page 7, paragraph 2** – Beginning with "The proposed WDR..." The issuance of WDRs is exempt from CEQA. Water Code §13389; 14 CCR §15263. Also, any permitting of an existing facility involving negligible or no expansion is exempt from CEQA under the more general "Existing Facilities" exemption. 14 CCR §15301. Similarly, replacement or reconstruction of existing facilities with new facilities with the same functionality on the same site is exempt. 14 CCR §15302. Therefore, the CRWQCB's issuance of the proposed WDR is exempt from CEQA.

**Page 7, paragraph 3** – Beginning with "The discharge of..." The ponds are not proposed as infiltration basins. The proposed use of the ponds is described in detail above. Furthermore, as discussed above, the proposed process water and management system is entirely different than the previous disposal practices. Finally, as explained above, the issuance of the proposed WDR is exempt from CEQA in any event.

**Page 7, paragraph 4** – Beginning with "It is unknown..." BTQCLC does not contemplate needing any discretionary approval from any other agency, and, therefore, does not expect that CEQA will apply. Of course, if some other agency later determines otherwise, CEQA will be applied at that time.

**Page 8, paragraph 1** – Beginning with "CCR Title 14..." As explained above, the CRWQCB's issuance of the proposed WDR is exempt from CEQA, and no CEQA-triggering approvals are contemplated by any other agency.

**Page 8, item 3, paragraph 1** – Beginning with "The Regional Board's..." As explained above, the Current Discharge has not degraded groundwater, and the Proposed Future Discharge will not cause degradation. Also, the Proposed Future Discharge is not an increase over the Prior Discharge. To the contrary, the Proposed Future Discharge at full build-out represents a reduction of 89% from the discharge volume permitted under the 1991 WDR.

**Page 8, item 3, paragraph 2** – Beginning with "Discharger Specification..." Once again, the record shows (1) the Current Discharge has not degraded groundwater, (2) the Proposed Future Discharge will be significantly different than the previous discharge that was authorized by the 1991 WDR and will not degrade groundwater and (3) the Discharger has not caused



Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 9

groundwater to exceed background groundwater quality and therefore has not discharged waste in violation of the previous order.

**Page 9, paragraph 2** – Beginning with “The Enforcement Policy, page 13...” Again, CSPA confuses the Prior Discharge with the Current Discharge. BTQCLC did not cause the Prior Discharge, and the Current Discharge does not cause groundwater degradation. Also again, CSPA conspicuously fails to cite to any evidence that the Proposed Future Discharge will cause degradation, and this is not surprising, as the record shows the opposite is true.

**Page 9, item 4** – Beginning with “The Regional Board...” CSPA cites no legal requirement that the CRWQCB notify down-gradient and side-gradient property owners “regarding their status as a designated party.” The applicable regulation (23 CCR §648.1) leaves to the discretion of the CRWQCB decisions on who should and should not be a designated party. CSPA’s citation to the public trust doctrine (for the proposition that the CRWQCB should require a broad off-site groundwater well testing program as a condition of approving the proposed WDR) is puzzling, as the doctrine concerns the State’s title to its tide and submerged lands. See [http://www.slc.ca.gov/policy\\_statements/public\\_trust/public\\_trust\\_doctrine.pdf](http://www.slc.ca.gov/policy_statements/public_trust/public_trust_doctrine.pdf).

**Page 10, item 5, paragraph 1** – Beginning with “The Effluent limitation...” Adding chemicals to control pH of the effluent in a range narrower than 4.5 to 10.0 is not desirable as it may unnecessarily increase the TDS of the effluent. There is sufficient buffer capacity in the land application area soils and in the inherent alkalinity (conversion of ionized organic acids to bicarbonate ion) of the effluent to maintain appropriate soil pH. If annual monitoring of the soil pH indicates that soil buffer capacity needs to be increased, lime can be added to the soil.

**Page 10, item 6, paragraph 1** – Beginning with “State Board’s Water...” The proposed operation of the tailwater basin is described above. Given the quality of the water that is expected to be present in the tailwater basin (primarily San Joaquin Irrigation District water and rainwater) and the fact that water will not remain in the pond for extended periods of time, maintaining a DO of 1.0 mg/l is not necessary. The objective of the DO requirement is to prevent nuisance odors and if the basin is not creating a nuisance odor, the requirement should not be imposed on the Discharger. In any event, the proposed WDR contains prohibitions (B.3. and B.6.) as to both nuisances and odors so an additional numerical limit is not needed.

**Page 10-11, item 7** – Again, the record shows that (1) the Proposed Future Discharge will not degrade groundwater quality, (2) the Discharger is required to perform monitoring to confirm that degradation is not occurring, and (3) if the monitoring results show degradation is occurring, the CRWQCB may reopen the WDR “to reconsider effluent limitations and other requirements to comply with Resolution 68-16” (see Finding 65) or take enforcement action (see Order B.4.) or both.

Ms. Pamela Creedon  
Central Valley Regional Water Quality Control Board  
6 March 2009  
Page 10

**Closing**

Thank you for consideration of these responses to the CSPA comments. If you or your staff have any questions or if you would like to meet to discuss, please contact Paul Franzia with Barrel Ten Quarter Circle Land Company at 209-556-6731 or me at 415-243-2524.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Robert S. Chrobak, P.E.  
Project Manager

cc: Mary Serra, CRWQCB  
Timothy R. O'Brien, CRWQCB  
Paul Franzia, BTQCLC  
John Franzia, BTQCLC  
Brian S. Haughton, Esq., Barg Coffin Lewis & Trapp, LLP